Comments on Draft EE/CA dated Aug 2010
Prepared by R10 Start
Avery Landing Site

In general it should be noted that I had very little time to review this document, also I did not have the figures, tables and appendices to refer to. They may be on the FTP site, but I did not receive info on the site and how to download from it. Needless to say the document is incomplete without these items. Because of my time constraints, I concentrated on sections 3 on. Also I did not review for typos although I saw a few.

1. A general comment, I am confused about PCB contamination. It is stated that no PCB transformer oil was used, however, some PCBs were found (page 2-7), but are not considered COCs. I think there needs to be some clarification on the levels of PCBs found.
2. Page 2-7, there is a statement that soil washing is effective for DRO and heavy-oil range hydrocarbons, what about the other contaminants?
3. Page 2-18, were any of the surface water samples taken in an area with a sheen?
4. Section 3.3, was future land use considered in establishing the Removal Action Objectives? The Objectives seem very general, for example prevent contact with site COCs, this could be read that we should clean up to non detect, I don't think we want this. Also it seems that all of these RAOs could be met with institutional controls, which is not what I think we want.
5. Page 3-2 says cleanup levels will depend on the alternative selected. Usually it is the other way around, the cleanup levels help determine which alternatives are effective, unless we have a case of technical infeasibility. The clean up levels should be determined and used in the evaluation of the alternatives.
6. Page 3-2, Section 3.5 The planned removal activities are written as though a decision to excavate has already been made.
7. Page 4-1, was an institutional control alternative considered?
8. For A2, A3, and A4 why not title Excavation & Thermal desorption or soils, to me the term "LNAPL Extraction" implies that you are going to install extraction wells, not that you are going to excavate and skim the LNAPL.
9. Section 4.1, I would suggest that the subsections follow the same order they are listed in section 3.5.
10. Section 4.1.1, the discussion of the excavation seems simplistic, very little on dewatering process, no mention of how the debris mentioned in section 2.1.4 will be dealt with, how clean overburden will be differentiated from contaminated etc. If you plan to excavate in summer/fall to be a low groundwater levels, this may drive soil washing and/or LTTD into the winter, this needs to be considered. Since there is LNAPL is there a concern for smearing during excavation.
11. Section 4-2 how will seeps into the river be prevented when this work is done?
12. Section 4.1.4 states that the area will be returned to pre-removal conditions I suggest not making this statement, just stabilize, grade and vegetate.
13. Section 4.1.6, which alternatives does this apply to? Should this be included in section 3.5?

14. Section 4.2.2 the clean up level needs to be established. Also sometimes an excavation clean up level is not the same as the treatment level? LTTDs can also use propane. Not all LTTDs use condensers, I would not list this as a definite part of the process, you will eliminate most mobile units if you do. My experience is that almost all LTTDs will require and afterburner, condensers will not meet the air limits, and carbon becomes cost prohibitive. I see no discussion about metals which are listed as a COC for soils, metals in general will remain in the soils, will this prevent the treated soil from being backfilled? Treated soils that do not meet the clean up levels are usually retreated. Since there is a generated air steam it will need to be sampled, ambient air sampling is not sufficient. A proof of performance test is required with stack sampling, if an afterburner is used MACT rules and combustion regs need to be considered, this all needs to be included in the pricing.
15. Are we sure from the treatability test that soil washing will meet the clean up levels and allow for backfilling it? Are we sure that there will not be a liquid phase waste stream that will need to be handled and disposed of? A filter cake of 8% of treated soil volume seems low, do we have enough confidence in the soil characterization and treatability test to state this number, it can have a significant effect on the cost. What is the basis for 850 cubic yards per day?
16. Section 4.2.4 Since there will be excavation below the water table what dewatering will be needed. Will there be a concern for settling and a water phase forming during transport?
17. Section 4.2.5, has mounding at the wall been considered? Are there any issues installing the wall near the river?
18. For all of the alternatives there seems to be a lot left to the final design.
19. I see nothing of available disposal facilities, where are they, transportation issues, truck vs. rail. Disposing of liquid waste is not always easy, if a condenser is part of the LTTD (which I do not recommend) you will have a concentrated liquid waste to dispose of, may also have a liquid waste with soil washing. I better discussion of disposal options and issues needs to be included. Also the brief discussion on the short term effectiveness of transportation is just barely mentioned in section 5.4. Depending on the public this can be a major issue.
20. I realize that in section 5 you are following the EE/CA guidance document, but a discussion on how the criteria of effectiveness, implement ability and cost tie back to the removal action objectives would be helpful.
21. Page 5-2, don't you need to do a present worth on A5?
22. Page 5-4, as mentioned before for LTTD the emissions will need to be tested during a POP test, ambient air monitoring will not suffice. What is the reference on the 10^{-5} risk level? Again this is written as though there "has" to be a condenser, do not limit the units to ones with condensers, in fact in my experience they make the system overly complicated add an additional waste stream, are expensive, and still require an afterburner.
23. Page 5-5, I am still not clear that soil washing will meet the clean up level.
24. Page 6-3 mentions complex dewatering, but this has never been discussed in the document.

25. Section 8, I saw one reference on natural attenuation, other than that I did not see any reference on remediation technologies in general or on the specific technologies in the proposed alternatives. What references were used?